UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/762,577	08/29/2002	Glenn Dranoff	50059/005002	5254

2101 7590 09/21/2005

BROMBERG & SUNSTEIN LLP
125 SUMMER STREET
BOSTON, MA 02110-1618

EXAMINER	
DAVIS, MINH TAM B	

ART UNIT	PAPER NUMBER
1642	

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/762,577	DRANOFF ET AL.	
	Examiner	Art Unit	
	MINH-TAM DAVIS	1642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 October 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-85* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-85* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

580

DETAILED ACTION

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group A, claim(s) 1-2, 5-15, 30, 32-37, 78-85, drawn to a method for identifying a nucleic acid encoding a tumor antigen, the TRAAM nucleic acid of SEQ ID NO:1, 3 and 17-19, and a method for diagnosing a tumor which is leukemia , comprising detecting the TRAAM nucleic acid .

Group B, claim(s) 1-2, 5-15, 30, 32-37, 78-85, drawn to a method for identifying a nucleic acid encoding a tumor antigen, the TRAAM nucleic acid of SEQ ID NO:1, 3 and 17-19, and a method for diagnosing a tumor , comprising detecting the TRAAM nucleic acid .

A method detecting each of the following tumors constitutes a single invention: lymphoma, brain tumor, melanoma, fibrosarcoma, uterine, cervical, testicular, liver, ovarian, lung, renal cell, colon, breast, prostate or bladder carcinoma.

Group C, claim(s) 1-2, 5-15, 30, 32-37, drawn to a method for identifying a nucleic acid encoding a tumor antigen, which is the nucleci acid of SEQ ID NO: 7-9, 11, 14-16, or a method for diagnosing a tumor, comprising detecting said nucleic acid .

A method using each of the nucleic acids of SEQ ID NO:7-9, 11, 14-16, for detecting each of the following tumors constitutes a single invention: leukemia, lymphoma, brain tumor, melanoma, fibrosarcoma, uterine, cervical, testicular, liver, ovarian, lung, renal cell, colon, breast, prostate or bladder carcinoma.

Group D, claim(s) 3-4, 5-15, 26, 30-31, 36-37, drawn to a method for identifying a tumor antigen, encoded by SEQ ID NO: (1, 3, 17-19), 7-9, 11, 14-16, or a method for diagnosing tumor, comprising detecting the tumor antigen.

A method using each of polypeptide encoded by the nucleic acids of SEQ ID No: (1, 3,17-19), 7-9, 11, 14-16, for detecting each of the following tumors constitutes a single invention: leukemia, lymphoma, brain tumor, melanoma, fibrosarcoma, uterine, cervical, testicular, liver, ovarian, lung, renal cell, colon, breast, prostate or bladder carcinoma.

Group E, claims 14-15, 27, 29, 38, 48, drawn to a method for determining the level of an antibody or for detecting a tumor, comprising detecting an antibody that specifically binds to a tumor antigen, encoded by SEQ ID NO: (1, 3, 17-19), 7-9, 11, 14-16.

A method detecting an antibody to each of polypeptide encoded by the nucleic acids of SEQ ID No: (1, 3,17-19), 7-9, 11, 14-16, for detecting each of the following tumors constitutes a single invention: leukemia, lymphoma, brain tumor, melanoma, fibrosarcoma, uterine, cervical, testicular, liver, ovarian, lung, renal cell, colon, breast, prostate or bladder carcinoma.

Group F, claims 14-15, 28-29, drawn to a method for detecting a tumor, comprising detecting a cytotoxic T lymphocyte specific for a tumor antigen, encoded by SEQ ID NO: (1, 3, 17-19), 7-9, 11, 14-16.

A method detecting for each tumor cited in claim 29, comprising detecting a CTL specific for each of polypeptide encoded by the nucleic acids of SEQ ID No: (1, 3,17-19), 7-9, 11, 14-16 constitutes a single invention.

Group G, claims 16-17, 49, 53-54, 74-77, drawn to a polypeptide encoded by SEQ ID NO: (1, 3, 17-19), 7-9, 11, 14-16.

Each polypeptide encoded by the nucleic acids of SEQ ID No: (1, 3,17), 7-9, 11, 14-16 constitutes a single invention.

Group H, claims 18-23, 50-52, 55-62, drawn to the nucleic acid of SEQ ID NO: 7-9, 11, 14-16, a probe, a vector and a cell comprising said nucleic acid.

Each nucleic acid of SEQ ID No: 7-9, 11, 14-16 constitutes a single invention.

Group I, claims 24-25, drawn to an antibody specific for a polypeptide encoded by SEQ ID NO: (1, 3, 17-19), 7-9, 11, 14-16.

An antibody specific for each polypeptide encoded by the nucleic acids of SEQ ID No: (1, 3,17-19), 7-9, 11, 14-16 constitutes a single invention.

Group J, claims 39-40, 67-70, drawn to a method for treating tumor, using a tumor antigen encoded by SEQ ID NO: (1, 3, 17-19), 7-9, 11, 14-16.

A method for treating each of the tumor consisting of leukemia, lymphoma, brain tumor, melanoma, fibrosarcoma, uterine, cervical, testicular, liver, ovarian, lung, renal cell, colon, breast, prostate or bladder carcinoma, using each of

polypeptide encoded by the nucleic acids of SEQ ID No: (1, 3,17-19), 7-9, 11, 14-16 constitutes a single invention.

Group K, claims 39-40, drawn to a method for prophylaxis for a patient who is at risk for developing a tumor, using a tumor antigen encoded by SEQ ID NO: (1, 3, 17-19), 7-9, 11, 14-16.

A method for propholaxis of each of the tumor consisting of leukemia, lymphoma, brain tumor, melanoma, fibrosarcoma, uterine, cervical, testicular, liver, ovarian, lung, renal cell, colon, breast, prostate or bladder carcinoma, using each of polypeptide encoded by the nucleic acids of SEQ ID No: (1, 3,17-19), 7-9, 11, 14-16 constitutes a single invention.

Group L, claims 39, 41-45, drawn to a method for treating tumor, or stimulating apoptosis, using a nucleic acid of SEQ ID NO: (1, 3, 17-19).

A method for treating each of the tumor consisting of leukemia, lymphoma, brain tumor, melanoma, fibrosarcoma, uterine, cervical, testicular, liver, ovarian, lung, renal cell, colon, breast, prostate or bladder carcinoma, using the nucleic acids of SEQ ID No: (1, 3,17-19) constitutes a single invention.

Group M, claims 39, 41-45, 63-66, drawn to a method for treating tumor, or stimulating apoptosis, using a nucleic acid of SEQ ID NO: 7-9, 11, 14-16.

A method for treating each of the tumor consisting of leukemia, lymphoma, brain tumor, melanoma, fibrosarcoma, uterine, cervical, testicular, liver, ovarian, lung, renal cell, colon, breast, prostate or bladder carcinoma, using each of the nucleic acids of SEQ ID No: 7-9, 11, 14-16 constitutes a single invention.

Group N, claims 39, 41-45, drawn to a method for prophylaxis for a patient who is at risk for developing a tumor, using a nucleic acid of SEQ ID NO: (1, 3, 17-19).

A method for propholaxis of each of the tumor consisting of leukemia, lymphoma, brain tumor, melanoma, fibrosarcoma, uterine, cervical, testicular, liver, ovarian, lung, renal cell, colon, breast, prostate or bladder carcinoma, using the nucleic acids of SEQ ID No: (1, 3,17-19) constitutes a single invention.

Group O, claims 39, 41-45, drawn to a method for prophylaxis for a patient who is at risk for developing a tumor, using a nucleic acid of SEQ ID NO: 7-9, 11, 14-16.

A method for propholaxis of each of the tumor consisting of leukemia, lymphoma, brain tumor, melanoma, fibrosarcoma, uterine, cervical, testicular, liver, ovarian, lung, renal cell, colon, breast, prostate or bladder carcinoma, using each of the nucleic acids of SEQ ID No: 7-9, 11, 14-16 constitutes a single invention.

Group P, claims 46-47, drawn to a method for treating a tumor, using an antibody specific for a tumor antigen, encoded by SEQ ID NO: (1, 3, 17-19), 7-9, 11, 14-16.

A method for treating each of the tumor consisting of leukemia, lymphoma, brain tumor, melanoma, fibrosarcoma, uterine, cervical, testicular, liver, ovarian, lung, renal cell, colon, breast, prostate or bladder carcinoma,using an antibody to each of polypeptide encoded by the nucleic acids of SEQ ID No: (1, 3,17-19), 7-9, 11, 14-16 constitutes a single invention.

Group Q, claims 71-73, drawn to a method for identifying a compound that modulates apoptosis or radiation sensitivity, comprising detecting the biological activity of MAIAP.

The inventions are distinct, each from the other because of the following reasons:

A national stage application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept. When claims to different categories are present in the application, the claims will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories: (1) A product and a process specially adapted for the manufacture of said product; or (2) A product and a process of use of said product; or (3) A product, a process specially adapted for the manufacture of the said product, and a use of the said product; or (4) A process and an apparatus or means specifically designed for carrying out the said process; or (5) A product, a process specially adapted for the manufacture of the said product, and an apparatus or means specifically designed for carrying out the said process. If multiple products, processes of manufacture or uses are claimed, the first invention of the category first mentioned in the claims of the application will be considered as the main invention in the claims, see PCT article 17(3) (a) and 1.476 (c), 37 C.F.R. 1.475(b) and (d). Group I will be the main invention. After that, all other products and methods will be broken out as separate groups (see 37 CFR 1.475(d).)

Group A, claims 1-2, 5-15, 30, 32-37, 78-85, SEQ ID NO:1, 3, 17-19 forms a single general inventive concept.

Groups B, L, N are additional use of SEQ ID NO:1, 3, 17-19.

Groups C-F, J-K, M, O-Q do not share the same technical feature of group I, because the methods of groups C-F, J-K, M, O-Q do not use the sequences of SEQ ID NO:1, 3, 17-19 of group I.

Groups G-I do not share the same technical feature of group I, because the composition of groups G-I do not share a common structure with SEQ ID NO:1, 3, 17-19 of group I.

Accordingly, Groups A-Q are not so linked by the same or a corresponding special technical feature as to form a single general inventive concept.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH-TAM DAVIS whose telephone number is 571-272-0830. The examiner can normally be reached on 9:00 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JEFFREY SIEW can be reached on 571-272-0787. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SUSAN UNGAR, PH.D
PRIMARY

MINH TAM DAVIS

September 15, 2005